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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/823,814

04/14/2004

Tsutomu Okada

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EXAMINER

PAPAPIETRO, JACQUELINE M

ART UNIT

PAPER NUMBER

3739

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/823,814

Applicant(s)

OKADA, TSUTOMU

Examiner

Jacqueline Papapietro

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-10 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 04/14/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: There is a mistake in the punctuation in line 27 of page 17.

Appropriate correction is required.

Claim Objections

Claims 1, 2, and 5 are objected to because of the following informalities: Claim 1 recites "insulative insulating tip" in line 6 of the claim. It is suggested that "insulative" be deleted. Claim 2 states, "the sheath has a single bore which is inserted in the operating wire;" however, the examiner believes it is meant to be recited that the operating wire is inserted in a single bore in the sheath. Claim 5 recites "the opening prevent" in line 6 of the claim. It is suggested that "opening" be changed to "openings" in order to correct the grammar of the claim and to create proper antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kokai (Publication No. 4-329944) in view of Rexroth et al (US 4943290). All references to Kokai will be made regarding the text of the English translation provided by the Applicant and the drawings in the Japanese Patent Application.

Regarding claim 1, Kokai discloses a radio knife (1) comprising: an electrically insulating flexible sheath (2) having a distal end portion and a proximal end portion, the distal end portion of the sheath having a distal opening (13) and an axis; a tip (4) which closes the distal opening of the sheath (Fig 4), the tip having a slide hole with diameter smaller than that of the distal opening extending along the axis thereof (Fig 4); an operating wire (14) axially movable in the sheath (paragraph 0013 lines 8-14); an electrode portion (6) which has a distal end portion and a proximal end portion and of which least a part forms a rod-shaped portion (Fig 4), the proximal end portion of the electrode portion being coupled to the operating wire (paragraph 0013 lines 4-6), the rod-shaped portion being passed through the slide hole for axial projection and retraction (X, seen in Fig 5); a control section (3 and 15) which is provided on the proximal end portion of the sheath (Fig 5) and controls the operating wire to project and

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retract the electrode portion in the axial direction (paragraph 0013 lines 8-14), the control section having a high-frequency current supply portion (paragraph 0010 lines 6-8) which supplies a high-frequency current to the electrode portion (paragraph 0011 lines 9-12); a liquid feed portion which is provided on the proximal end side of the sheath and feeds liquid into the sheath (17); and an opening for liquid feed which is formed in the tip (paragraph 0014 lines 3-5) and prevents the rod-shaped portion (6 and 7) from inserting therein (Fig 4). The translation of Kokai is silent regarding the material of the tip and does not specifically state that the tip is insulating. Kokai does not disclose multiple openings for liquid feed, which are formed in the tip.

W/1/8/07

Rexroth teaches an electrosurgical device (10) comprising an electrically insulating sheath (70, column 9 lines 3-5) having a distal end portion and a proximal end portion, the distal end portion of the sheath having a distal opening and an axis (Fig 4). The insulation sheath inherently has a tip portion at its distal end. The insulating tip defines a slide hole for the rod-shaped electrode shaft (50), the slide hole having a diameter smaller than that of the distal opening (Fig 14). The electrosurgical device of Rexroth has a liquid feed portion (18) which is provided on the proximal end side of the sheath (Fig 13) and feeds a liquid into the sheath. The insulating tip defines openings for liquid feed (column 8 lines 63-66), which prevent the rod-shaped portion (50) from inserting therein (Fig 14).

Regarding claim 2, Kokai discloses a radio knife, as described above, wherein the sheath has a single bore into which the operating wire is inserted (Fig 5).

Regarding claim 3, Rexroth teaches a radio knife, as described above, wherein the insulating tip is located so that the openings for liquid feed communicate with the slide hole (Fig 14).

Regarding claim 4, Rexroth teaches a radio knife, described above, wherein the slide hole of the insulating tip is formed of a polygonal opening (formed by 96-98 and 100-102) in which the rod-shaped portion is inscribed (60), the other parts of the polygonal opening than that part which is occupied by the rod-shaped portion forming the openings for liquid feed (Fig 14).

Regarding claim 5, Rexroth teaches a radio knife, described above, wherein the insulating tip is formed having a plurality of straight openings extending radially outward from slide hole, the respective inner end portions of the openings being coupled to the slide hole, each of the straight openings having a width such that the opening prevent the electrode portion from inserting therein (Fig 14).

Regarding claim 7, Kokai discloses a radio knife, described above, wherein the sheath has an extending portion extending ahead of the insulating tip, the extending portion having an internal space which stores the electrode portion (Fig 5).

Regarding claim 8, Rexroth teaches a radio knife, as described, wherein the electrode portion (50) has an extending portion (26) located on the distal end portion of the rod-shaped portion and extending across the extending direction of the rod-shaped portion (Fig 15).

Regarding claim 9, Rexroth teaches a radio knife, as described above, wherein the extending portion is a hooked bent portion (26C) extending substantially at right angles to the distal end portion of the rod-shaped portion (Fig 18)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kokai in view of Rexroth to obtain the instant invention of claims 1-5 and 7-9 in order to better guide the fluid around the electrode tip, as taught by Rexroth, and to increase the number of applications for which the device can be used.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kokai in view of Rexroth as applied to claim 8 above, and further in view of Kittur et al (US 5846241).

Kokai in view of Rexroth does not specifically disclose a platelike electrode. Kittur teaches a radio knife (10) wherein the extending portion (22) is a platelike electrode portion (24) coupled to the distal end portion of the rod-shaped portion (20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the invention of Kokai in view of Rexroth with the platelike electrode of Kittur because all three inventions are similar electrosurgical devices that perform similar functions. It would have been obvious to combine the three inventions in order to provide one device with an increased number of applications for which it can be used.

Allowable Subject Matter

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacqueline Papapietro whose telephone number is (571) 272-1546. The examiner can normally be reached on M-F 9am-5:30pm.

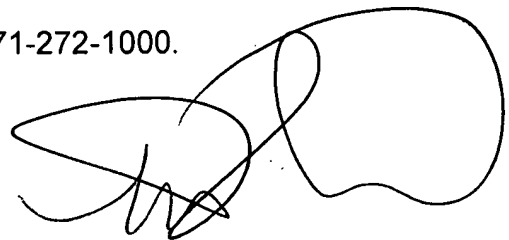
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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Art Unit 3739



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